

Science Experiment Instructions

1. You will find a science experiment.

- One that you can do by the end of this section.
- Do not overburden yourselves with an experiment that takes money and too much time.
- You must have a control.
- You must have two variables.
- You must be able to gather graphable and explainable data.

2. Question

- Should be based on an observation/curiosity.
- Come up with a question that you will try to prove.

3. Hypothesis

- Come up with a potential solution to the problem/question.
- Remember it must be testable.

4. Materials

- Come up with a materials list for your experiment.

5. Procedure

- You will come up with a step by step procedure to your experiment.
- Make sure your procedure is easy to follow. I will read your procedure to you and you will have to follow them exactly.
- Make sure you use standard units of measure. (mm, cm, m, ml, l, etc...)

6. Observations

- What happens with the control and the two variables?
- What did you see, taste, smell, hear and feel?

7. Conclusion

- The correct answer to your question as well as the scientific explanation. This should be a one to two paragraph explanation.

8. Presentation

- You may use any method to present the information above as long as it is:
 - visual
 - interactive
 - informative
 - scientifically accurate
 - neat
- Spelling and grammar will be graded on your presentation.
- Present your experiment in this order: Question, hypothesis, materials needed, procedure, observations, and conclusions

You will have today to work on this in class. You will present your experiment on August 28 to August 30. Use Google or any of the science experiment books on the back table. Please do not vandalize my books and put them up when you are done. You may work in groups of 1, 2, or 3. Make sure that if you work with other people you don't choose a freeloader or two.

The following are not allowed:

- Baking soda and vinegar experiments
- Anything that requires a pickle
- Anything that explodes.
- Mentos and Soda Experiments
- Cruelty to animals

REMEMBER: You have to do an experiment that can be scientifically explained, so make sure you understand the science of why your experiment did what it did.

Science Experiment Rubric

Remember your science experiment should follow the rules as outlined by the science experiment instruction sheet. Below is the rubric for grading this assignment.

	Scientist <i>6 Points</i>	Scientist's Assistant <i>4 Points</i>	Student of Science <i>2 Points</i>	Future Student of Science <i>1 Point</i>
Timeliness	You were ready to present your experiment on time.	You were one day late in presenting your experiment.	You were two days late in presenting your experiment.	You were more than two days late presenting your experiment.
Written Presentation	Your presentation contained all parts of the scientific method and followed the lab instructions.	Your presentation is missing 1 to 2 parts of the scientific method and did not follow all the lab sheet instructions.	Your presentation is missing 3-4 parts of the scientific method and you struggled following the lab sheet instructions.	You did not turn in a presentation or it was missing more than 4 parts to the scientific method and did not follow the lab sheet instructions.
Procedure	Your procedure is written so that the average student can interpret and follow your instructions as outlined.	Your procedure is slightly confusing to the average student and they would have trouble following your instructions.	Your procedure was present, but vague and did not give enough detail for the average student to follow.	Your procedure was missing or confuses those who read it.
Scientific Understanding /conclusion	Your conclusion states an answer to your hypothesis. You followed your statement with a correct scientific explanation as to how or why your experiment acted the way it did.	You have a conclusion, but it might not be an answer to your hypothesis. You did a decent job explaining the science behind your experiment, but could have included more detail.	Your conclusion attempted to answer your hypothesis and your explanation was present, but was either not 100% correct or did not adequately explain the science behind your experiment.	Your conclusion was either missing or not well written. You did not have a correct explanation of the science behind your experiment.

Control and variables	Your experiment had a control and two variables. The control was accurate and the variables made sense.	Your experiment was either missing a control or one of the two variables.	You were missing the control and or two variables.	You did not attempt to add a control or have two variables present.
Data	Your presentation had accurate and visual data that represented some observations made during your experiment.	Your presentation contained data, but it was inaccurate or did not adequately give data for your experiment.	You attempted to have data for your experiment but did not represent it accurately.	You are lacking a visual representation of data gathered during your experiment.
Experiment Sheet Rules	Your experiment followed all of the rules as outlined in the experiment rules sheet.	You broke no more than one rule as outlined in the experiment rules sheet.	You broke more than one rule as outlined in the experiment rules sheet.	You did not appear to have read and followed the rules as outlined in the experiment rules sheet.
Grammar and Spelling	Your presentation contained fewer than 5 grammar and spelling mistakes.	Your presentation contained between 5 and 10 grammar and spelling mistakes.	Your presentation contained between 10 and 15 grammar and spelling mistakes.	Your presentation contained more than 15 grammar and spelling mistakes.